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NOTICE OF ALLOWANCE AND FEE(S) DUE

52349

7590

03/02/2010

WENDEROTH, LIND & PONACK L.L.P.
1030 15th Street, N.W.
Suite 400 East
Washington, DC 20005-1503

EXAMINER

PHAM, LUU T

ART UNIT

PAPER NUMBER

2437

DATE MAILED: 03/02/2010

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/511,903 | 10/20/2004 | Junji Yoshida | 2004, 1622A | 4793 |

TITLE OF INVENTION: COMMUNICATION APPARATUS AND AUTHENTICATION APPARATUS

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 06/02/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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52349 7590 03/02/2010

WENDEROTH, LIND & PONACK L.L.P.
1030 15th Street, N.W.
Suite 400 East
Washington, DC 20005-1503

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

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| (Depositor's name) |
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/511,903 10/20/2004

Junji Yoshida

2004, 1622A

4793

TITLE OF INVENTION: COMMUNICATION APPARATUS AND AUTHENTICATION APPARATUS

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 06/02/2010 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|-------------|----------|----------------|
| PHAM, LUU T | 2437 | 713-175000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
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4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| 52349 | 7590 | 03/02/2010 | EXAMINER | |
| WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East Washington, DC 20005-1503 | | | PHAM, LUU T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2437 | |
| DATE MAILED: 03/02/2010 | | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 880 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 880 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/511,903

Applicant(s)

YOSHIDA ET AL.

Examiner

LUU PHAM

Art Unit

2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/25/2010.
2. ☒ The allowed claim(s) is/are 13 and 14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Luu Pham/
Examiner, Art Unit 2437

DETAILED ACTION

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this Examiner's Amendment was given in a telephone interview with Applicant's representative, Mr. Andrew Dunlap (Reg. No. 60,554) on February 17, 2010. During the telephone conference, Mr. Dunlap has agreed and authorized the Examiner to amend Claim 13.

Claims

3. Replacing Claim 13 as following:

Claim 13: (Currently amended) A method operating a communication system comprising (i) an N^{th} authentication apparatus, (ii) an $(N+1)^{\text{th}}$ authentication apparatus, and (iii) an $(N+1)^{\text{th}}$ download server, each being connected over a communication network,

wherein N and $(N+1)$ are values each indicating a number in a sequence in a case where a plurality of authentication apparatuses and a plurality of corresponding download servers are sequentially put into operation, N being an integer of 1 or larger,

wherein the N^{th} authentication apparatus includes:

an N^{th} server certificate issue unit operable to issue an N^{th} server certificate ensuring validity of an application server; and

an N^{th} certificate authority (CA) information issue unit operable to issue N^{th} CA information including an N^{th} CA certificate and an $(N+1)^{\text{th}}$ address for update, the N^{th} CA certificate indicating that the N^{th} server certificate is valid, and the $(N+1)^{\text{th}}$ address for update indicating a location of the $(N+1)^{\text{th}}$ download server on the communication network,

wherein the $(N+1)^{\text{th}}$ authentication apparatus includes:

an $(N+1)^{\text{th}}$ server certificate issue unit operable to issue an $(N+1)^{\text{th}}$ server certificate ensuring the validity of the application server; and

an $(N+1)^{\text{th}}$ CA information issue unit operable to issue $(N+1)^{\text{th}}$ CA information including an $(N+1)^{\text{th}}$ CA certificate and an $(N+2)^{\text{th}}$ address for update, the $(N+1)^{\text{th}}$ CA certificate indicating that the $(N+1)^{\text{th}}$ server certificate is valid, the $(N+2)^{\text{th}}$ address for update indicating a location, on the communication network, of an $(N+2)^{\text{th}}$ download server on which $(N+2)^{\text{th}}$ CA information is placed, and the $(N+2)^{\text{th}}$ CA information including an $(N+2)^{\text{th}}$ CA certificate to be a next valid CA certificate in a case where the $(N+1)^{\text{th}}$ CA certificate is revoked,

wherein the $(N+1)^{\text{th}}$ download server includes:

a CA information storage unit operable to store the $(N+1)^{\text{th}}$ CA information including the $(N+1)^{\text{th}}$ CA certificate to be a next valid CA certificate in a case where the N^{th} CA certificate is revoked; and

an output unit operable to output, to a communication apparatus, the $(N+1)^{\text{th}}$ CA information stored in the CA information storage unit, the communication apparatus being connected to the $(N+1)^{\text{th}}$ download server via the communication network, the communication apparatus being a client apparatus that receives a service from the application server after the validity of the application server is verified, and

wherein said method comprises:

an Nth operation step of starting up the Nth authentication apparatus to place the Nth authentication apparatus in operation to issue the Nth server certificate;

issuing, via the N^{th} CA information issue unit of the N^{th} authentication apparatus, the N^{th} CA information including (i) the N^{th} CA certificate indicating that the N^{th} server certificate is valid and (ii) the $(N+1)^{\text{th}}$ address for update indicating the location of the $(N+1)^{\text{th}}$ download server on the communication network;

a first revocation determination step of determining whether or not the N^{th} CA certificate has been revoked before a validity period of the N^{th} CA certificate expires;

a before-validity-period-expiration determination step of determining whether or not a certain point in time before the validity period of the N^{th}

CA certificate expires has arrived, when said first revocation determination step determines that the N^{th} CA certificate has not been revoked;

an $(N+1)^{\text{th}}$ operation step of starting up the $(N+1)^{\text{th}}$ authentication apparatus and the $(N+1)^{\text{th}}$ download server to place the $(N+1)^{\text{th}}$ authentication apparatus and the $(N+1)^{\text{th}}$ download server into operation, when said before-validity-period-expiration determination step determines that the certain point in time before the validity period of the N^{th} CA certificate expires has arrived;

a second revocation determination step of redetermining whether or not the N^{th} CA certificate has been revoked before the validity period of the N^{th} CA certificate expires;

a validity-period-expiration determination step of determining whether or not the validity period of the N^{th} CA certificate has expired, when said second revocation determination step determines that the N^{th} CA certificate has not been revoked; and

a termination step of terminating the operation of the N^{th} authentication apparatus when said validity-period-expiration determination step determines that the validity period of the N^{th} CA certificate has expired.

Examiner's Statement of reason of Allowance

4. **Claims 13-14 are allowed.**
5. **The following is an examiner's statement of reasons for allowance:**

The present invention is directed to a method and system for operating a communication system for issuing and downloading certificates wherein plurality of authentication apparatuses and a plurality of corresponding download servers are sequentially put into operation;

The closest prior art, as previously recited, Kenichi et al., ("Kenichi", JP 2002-215826) and Perlman et al., ("Perlman", US 6,230,266), are also generally directed to various aspects of issuing and updating certificate. However, neither Kenichi nor Perlman teaches/suggests, alone or in combination, the particular combination of steps or elements as recited in the independent claim, claim 13. For example, none of the cited prior art teaches or suggest the steps of *starting up the Nth authentication apparatus to place the Nth authentication apparatus in operation to issue the Nth server certificate; issuing the Nth CA information including the Nth CA certificate indicating that the Nth server certificate is valid and the (N+1)th address for update indicating the location of the (N+1)th download server on the communication network; determining whether or not the Nth CA certificate has been revoked before a validity period of the Nth CA certificate expires; determining whether or not the Nth CA certificate has been revoked before a validity period of the Nth CA certificate expires; redetermining*

whether or not the N^{th} CA certificate has been revoked before the validity period of the N^{th} CA certificate expires; determining whether or not the validity period of the N^{th} CA certificate has expired, when said second revocation determination step determines that the N^{th} CA certificate has not been revoked; and terminating the operation of the N^{th} authentication apparatus when said validity-period-expiration determination step determines that the validity period of the N^{th} CA certificate has expired.

Therefore the claims are allowable over the cited prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luu Pham whose telephone number is 571-270-5002. The examiner can normally be reached on Monday through Friday, 7:30 AM - 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel L. Moise can be reached on 571-272-3865. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Luu Pham/
Examiner, Art Unit 2437

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437